

CLAIMS

1. An ophthalmic implant for treating or alleviating the symptoms of glaucoma, the implant having:

- 5 a) a plate shaped to fit the surface of an eye when implanted,
- 10 b) an inner ridge located on the upper surface of the plate, where a region encompassed by the inner ridge defines a primary drainage region into which fluid from the anterior chamber or posterior chamber of the eye can be drained when in use,
- 15 c) optionally an outer ridge located on the upper surface of the plate, provided that the height of the inner ridge relative to the surface of the plate is greater than the height of the outer ridge relative to the surface of the plate,
- 20 d) a secondary drainage region outside the inner ridge into which fluid from the primary drainage region can be received when in use, where the secondary drainage region is defined by the inner ridge and either the edge of the plate or the outer ridge, and
- 25 e) a hole in the inner ridge having a size enabling a drainage tube for draining the fluid from the anterior chamber or posterior chamber of the eye to the primary drainage region to be connected to the hole so that fluid can be transferred through the tube and into the primary drainage region.

2. An ophthalmic implant as claimed in claim 1 which has an outer ridge.

3. An ophthalmic implant as claimed in claim 2 where the outer ridge is located at or proximal to the edge of the plate.

4. An ophthalmic implant as claimed in claim 1 which has no outer ridge.

5. An ophthalmic implant as claimed in any one of the preceding claims including the drainage tube.

6. An ophthalmic implant as claimed in any one of the preceding claims where the plate has at least two suture holes, each suture hole located near the edge of the plate to allow the implant to be sutured to the surface of the eyeball.

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7. An ophthalmic implant as claimed in claim 6 where the plate has two suture holes.

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8. An ophthalmic implant as claimed in claim 6 where the plate has four suture holes.

9. An ophthalmic implant as claimed in any one of the preceding claims where the surface area of the primary drainage region is up to about one quarter of the surface area of the plate.

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10. An ophthalmic implant as claimed in any one of the preceding claims where the inner ridge has dimensions suitable to allow overlying Tenon's tissue to exert tension on the inner ridge so that fluid can escape from the drainage region onto the remainder of the surface of the plate only when the fluid pressure reaches a certain level.

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11. An ophthalmic implant as claimed in claim 10 where the fluid pressure is greater than about 12 to 15 mmHg.

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12. An ophthalmic implant as claimed in any one of the preceding claims where the dimensions of the plate enable the plate to be inserted at least partly beneath adjacent rectus muscle tendons close to their insertions on the eye.

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13. An ophthalmic implant as claimed in any one of the preceding claims where the implant is made from polypropylene.

14. An ophthalmic implant as claimed in any one of the preceding claims where the implant has more than one inner ridge.

15. An ophthalmic implant as claimed in any one of the preceding claims where the implant is linked to one or more additional implants by one or more interconnecting tubes to allow transfer of fluid from one implant to another.

5 16. A method of treating or alleviating the symptoms of glaucoma using an implant of any one of the preceding claims by:

a) surgically inserting the implant between the sclera and Tenon's tissue of the eye, and

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b) inserting the drainage tube through the surface of the eye and into either the anterior chamber or posterior chamber of the eye to allow fluid to drain from the anterior chamber or posterior chamber into the drainage region of the implant.

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17. A method as claimed in claim 16 further including the step of temporarily occluding the drainage tube using an absorbable ligature to delay drainage of fluid.

20 18. A method as claimed in claim 16 or claim 17 where the implant is held in place by one or more sutures.

19. A method as claimed in claim 18 where the implant is held in place by two sutures.

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